PATENT CLAIMS

1. A method for the formation of a good contact surface on a support bar of an electrode used in electrolysis, where an electrode plate is immersed in the electrolysis cell and a plate support bar is supported by its ends on the edges of the electrolysis cell so that the highly electroconductive end is held on a busbar, **characterised in that** a highly electroconductive layer is formed on at least one end of the support bar made of aluminium by coating the lower surface of the aluminium end of the bar, i.e. the contact surface, with silver or silver alloy and the highly electroconductive coating material forms a metallurgical bond with the aluminium support bar.

2. A method according to claim 1, **characterised in that** the silver alloy is silver-copper.

3. A method according to claim 1, **characterised in that** the highly electroconductive coating layer is formed of two layers having a transmission layer between them wherein the first layer is copper and the second silver or silver alloy, the transmission layer being tin or tin-dominate alloy.

4. A method according to any of claims 1- 3, **characterised in that** the support bar is equipped with a casing section made of some other material.

5. A method according to any of claims 1 - 4, **characterised in that** the highly electroconductive coating layer is formed using thermal spraying technique.

6. A method according to claim 5, **characterised in that** the thermal spraying technique is based on gas combustion.

7. A method according to claim 5 or 6, **characterised in that** the thermal spraying technique is high velocity oxy-fuel spraying.

8. A method according to any of claims 1 - 7, **characterised in that** the highly electroconductive coating material is in powder form.

9. A method according to claim 5 or 6, **characterised in that** the thermal spraying technique is flame spraying.

10. A method according to any of claims 1 – 6 or 9, **characterised in that** the highly electroconductive coating material is in wire form.

11. A method according to claim 3, **characterised in that** the first layer is formed by thermal spraying technique and the second by soldering.

12. A method according to any of claims 1 – 11, **characterised in that** at least one end of the aluminium support bar is furnished on the lower surface with a notch, and that the notch area is coated with a highly electroconductive material.

13. A support bar for an electrode used in electrolysis, where a plate section of the electrode is meant to be immersed in an electrolysis cell and a support bar to be supported by its ends on the edges of the electrolysis cell, **characterised in that** the area on the lower surface of the end of the aluminium support bar, i.e. the contact surface, is coated with a highly electroconductive coating layer being silver or silver alloy and the highly electroconductive coating material has formed a metallurgical bond with the aluminium support bar.

14. A support bar according to claim 13, **characterised in that** the silver alloy is silver-copper.

15. A support bar according to claim 13, **characterised in that** the highly electroconductive coating layer is formed of copper and silver with a transmission layer between them.

16. A support bar according to any of claims 13 - 15, **characterised in that** the support bar is equipped with a casing section made of some other material.

17. A support bar according to any of claims 13 - 16, **characterised in that** the highly electroconductive coating layer is formed using thermal spraying technique.

18. A support bar according to claim 15, **characterised in that** the highly electroconductive coating layer is formed using thermal spraying technique and soldering.